

10/729,105

FULL ESTIMATED COST	20.21	182.61
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.92	-2.92

STN INTERNATIONAL LOGOFF AT 10:27:03 ON 07 SEP 2005

10/729,105

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1201txs

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	4	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	5	MAR 02	GBFULL: New full-text patent database on STN
NEWS	6	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	7	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	8	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	9	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	10	MAR 22	PATDPASPC - New patent database available
NEWS	11	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	12	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	13	APR 04	EMBASE - Database reloaded and enhanced
NEWS	14	APR 18	New CAS Information Use Policies available online
NEWS	15	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/Caplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	16	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/Caplus
NEWS	17	MAY 23	GBFULL enhanced with patent drawing images
NEWS	18	MAY 23	REGISTRY has been enhanced with source information from CHEMCATS
NEWS	19	JUN 06	The Analysis Edition of STN Express with Discover! (Version 8.0 for Windows) now available
NEWS	20	JUN 13	RUSSIAPAT: New full-text patent database on STN
NEWS	21	JUN 13	FRFULL enhanced with patent drawing images
NEWS	22	JUN 27	MARPAT displays enhanced with expanded G-group definitions and text labels
NEWS	23	JUL 01	MEDICONF removed from STN
NEWS	24	JUL 07	STN Patent Forums to be held in July 2005
NEWS	25	JUL 13	SCISEARCH reloaded
NEWS	26	JUL 20	Powerful new interactive analysis and visualization software, STN AnaVist, now available
NEWS	27	AUG 11	Derwent World Patents Index(R) web-based training during August
NEWS	28	AUG 11	STN AnaVist workshops to be held in North America
NEWS	29	AUG 30	CA/Caplus - Increased access to 19th century research documents
NEWS	30	AUG 30	CASREACT - Enhanced with displayable reaction conditions
NEWS EXPRESS			JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),

10/729,105

AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:24:27 ON 07 SEP 2005

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 10:24:35 ON 07 SEP 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 6 SEP 2005 HIGHEST RN 862534-94-9

DICTIONARY FILE UPDATES: 6 SEP 2005 HIGHEST RN 862534-94-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

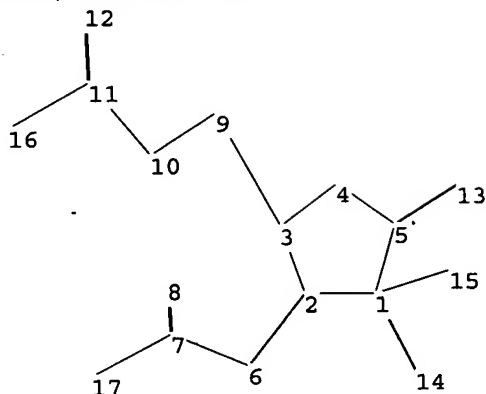
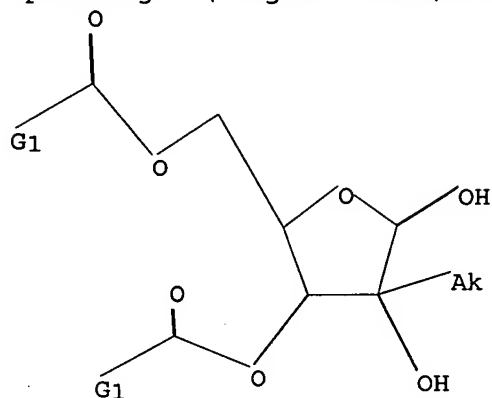
Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

10/729,105

=>

Uploading C:\Program Files\Stnexp\Queries\107291051.str



chain nodes :

6 7 8 9 10 11 12 13 14 15 16 17

ring nodes :

1 2 3 4 5

chain bonds :

1-14 1-15 2-6 3-9 5-13 6-7 7-8 7-17 9-10 10-11 11-12 11-16

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-14 1-15 2-6 5-13 6-7 7-8 7-17 9-10 10-11 11-12 11-16

exact bonds :

1-2 1-5 2-3 3-4 3-9 4-5

isolated ring systems :

containing 1 :

G1: Cy, Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS

L1 STRUCTURE UPLOADED

=> s l1

SAMPLE SEARCH INITIATED 10:25:01 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 562 TO ITERATE

100.0% PROCESSED 562 ITERATIONS  
SEARCH TIME: 00.00.01

2 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

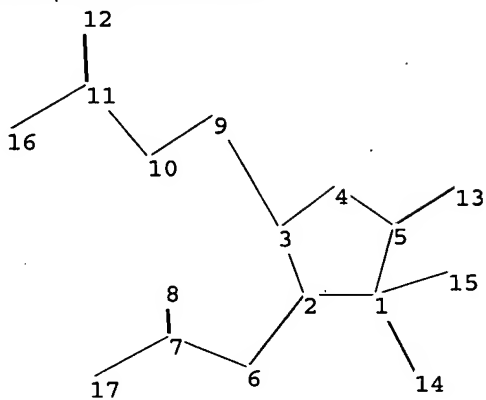
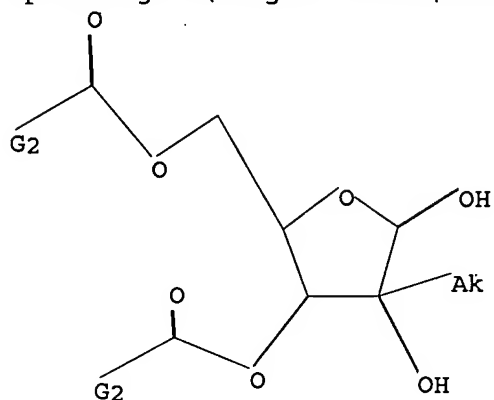
PROJECTED ITERATIONS: 9818 TO 12662  
PROJECTED ANSWERS: 2 TO 124

L2 2 SEA SSS SAM L1

10/729,105

=>

Uploading C:\Program Files\Stnexp\Queries\107291052.str



chain nodes :

6 7 8 9 10 11 12 13 14 15 16 17

ring nodes :

1 2 3 4 5

chain bonds :

1-14 1-15 2-6 3-9 5-13 6-7 7-8 7-17 9-10 10-11 11-12 11-16

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-14 1-15 2-6 5-13 6-7 7-8 7-17 9-10 10-11 11-12 11-16

exact bonds :

1-2 1-5 2-3 3-4 3-9 4-5

isolated ring systems :

containing 1 :

G1: Cy, Ak

G2: Cy, Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS

10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS

L3 STRUCTURE UPLOADED

=> s 13

SAMPLE SEARCH INITIATED 10:26:19 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 562 TO ITERATE

100.0% PROCESSED 562 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 9818 TO 12662

PROJECTED ANSWERS: 2 TO 124

L4 2 SEA SSS SAM L3

10/729,105

=> s l3 ful  
FULL SEARCH INITIATED 10:26:25 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 11827 TO ITERATE

100.0% PROCESSED 11827 ITERATIONS 3 ANSWERS  
SEARCH TIME: 00.00.01

L5 3 SEA SSS FUL L3

=> file caplus  
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION  
FULL ESTIMATED COST 162.19 162.40

FILE 'CAPLUS' ENTERED AT 10:26:39 ON 07 SEP 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 7 Sep 2005 VOL 143 ISS 11  
FILE LAST UPDATED: 6 Sep 2005 (20050906/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l5  
L6 4 L5

=> d l6 ibib hitstr abs 1-4

L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:702027 CAPLUS  
DOCUMENT NUMBER: 141:207474  
TITLE: Process for preparing branched ribonucleosides from 1,2-anhydroribofuranose intermediates useful in the treatment of HCV infection  
INVENTOR(S): Xu, Feng; Bio, Matthew M.; Cowden, Cameron J.; Savary, Kimberly A.; Williams, John M.; Yang, Chunhua; Waters, Majorie See  
PATENT ASSIGNEE(S): Merck & Co. Inc., USA  
SOURCE: PCT Int. Appl., 22 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004072090	A1	20040826	WO 2004-US3469	20040206
W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:

US 2003-446935P

P 20030212

OTHER SOURCE(S):

MARPAT 141:207474

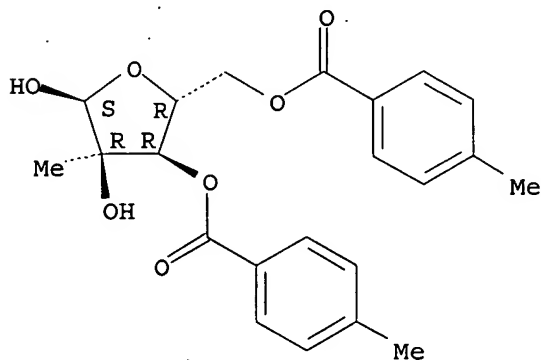
IT 741686-48-6P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (process for preparing branched ribonucleosides from 1,2-anhydroribofuranoses useful for treatment of HCV via ring cleavage with nucleobases)

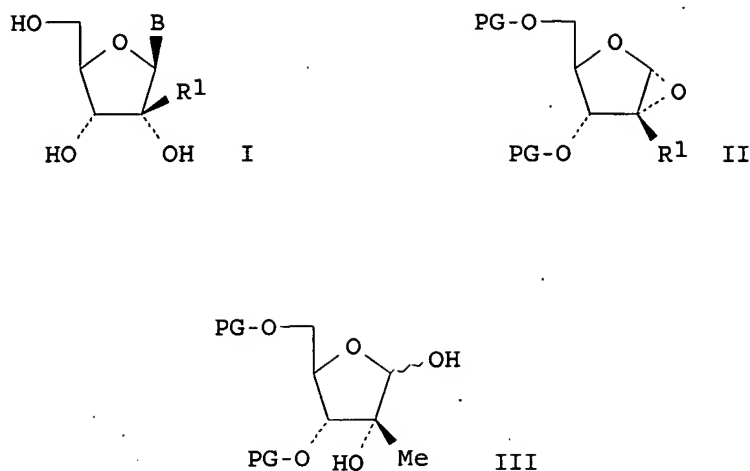
RN 741686-48-6 CAPLUS

CN  $\alpha$ -D-Ribofuranose, 2-C-methyl-, 3,5-bis(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI



AB A process is provided for the preparation of branched-chain ribonucleosides I, wherein wherein R1 is C1-6 alkyl and B is a purine or pyrimidine nucleobase selected from the group consisting of cytosine, uracil, thymine, hypoxanthine, adenine, guanine, 7-deazaguanine, 7-deazaadenine, 7-deaza-2,6-diaminopurine, and 7-deazahypoxanthine; from the 1,2-anhydro derivs. II, wherein PG is a hydroxy protecting group via ring cleavage of the anhydro ring with nucleobases. Compds. I are potential inhibitors of HCV polymerase and useful in the treatment of HCV infection. Thus; 4-amino-7-(2-C-methyl- $\beta$ -D-ribofuranosyl)-7H-pyrrolo[2,3-d]pyrimidine was prepared from diol III via ring cleavage of II (R1 = Me, PG = 4-methoxybenzoyl) with 4-phthalimido-7H-pyrrolo[2,3-d]pyrimidine.

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:650363 CAPLUS

DOCUMENT NUMBER: 141:332398

TITLE: Practical Synthesis of a Potent Hepatitis C Virus RNA Replication Inhibitor

AUTHOR(S): Bio, Matthew M.; Xu, Feng; Waters, Marjorie; Williams, J. Michael; Savary, Kimberly A.; Cowden, Cameron J.; Yang, Chunhua; Buck, Elizabeth; Song, Zhiguo J.; Tschaen, David M.; Volante, R. P.; Reamer, Robert A.; Grabowski, Edward J. J.

CORPORATE SOURCE: Process Research, Merck Research Laboratories, Rahway, NJ, 07065, USA

SOURCE: Journal of Organic Chemistry (2004), 69(19), 6257-6266  
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:332398

IT 741686-48-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of 4-amino-7-(2'-C-methyl- $\beta$ -D-ribofuranosyl)-7H-pyrrolo[2,3-d]pyrimidine via stereoselective rearrangement, epoxide ring opening, and stereoselective glycosidation)

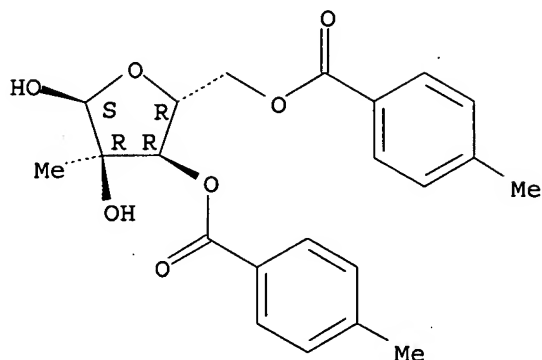
RN 741686-48-6 CAPLUS

CN  $\alpha$ -D-Ribofuranose, 2-C-methyl-, 3,5-bis(4-methylbenzoate) (9CI) (CA

INDEX NAME)



Absolute stereochemistry.



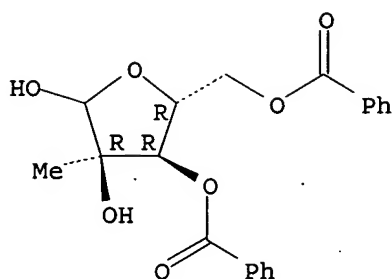
AB A practical, efficient synthesis of 4-amino-7-(2'-C-methyl- $\beta$ -D-ribofuranosyl)-7H-pyrrolo[2,3-d]pyrimidine, a hepatitis C virus RNA replication inhibitor, is described. Starting with inexpensive diacetone glucose, the 12-step synthesis features a novel stereoselective rearrangement to prepare the key crystalline furanose diol intermediate. This is followed by a highly selective glycosidation to couple the C-2 branched furanose epoxide with deazapurine.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1970:520872 CAPLUS  
 DOCUMENT NUMBER: 73:120872  
 TITLE: Antiviral ribofuranosylpyrimidines and purines  
 INVENTOR(S): Walton, Edward  
 PATENT ASSIGNEE(S): Merck and Co., Inc.  
 SOURCE: Fr., 54 pp.  
 CODEN: FRXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1581628		19690919		
PRIORITY APPLN. INFO.:			US	19670703
IT 30361-18-3P				
RL: SPN (Synthetic preparation); PREP (Preparation)				
(preparation of)				
RN 30361-18-3 CAPLUS				
CN Ribofuranose, 2-C-methyl-, 3,5-dibenzoate, D- (8CI)				(CA INDEX NAME)

Absolute stereochemistry.



GI For diagram(s), see printed CA Issue.

AB 2,3,5-Tri-O-benzoyl-2-C-methyl-D-ribofuranosyl chloride in dry PhMe was refluxed with 2,4-dimethoxypyrimidine 5 days to give 1-(2,3,5-tri-O-benzoyl-2-C-methyl-β-D-ribofuranosyl)-4-methoxy-2(1H)-pyrimidone (I, R = Bz, R1 = Me, R2 = H, R3 = MeO), [α]<sub>D</sub> -21° (CHCl<sub>3</sub>), and I (R = Bz, R1 = Me, R2 = R3 = H), m. 202°, [α]<sub>D</sub> -23°, (CHCl<sub>3</sub>). Approx. 5 other I having antiviral activity, and inhibiting RNA synthesis in ascites and KB cells were prepared

L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1969:97108 CAPLUS

DOCUMENT NUMBER: 70:97108

TITLE: Nucleic acid components and their analogs. CXX.

2-C-Methyl-D-ribose and its derivatives

AUTHOR(S): Novak, Jiri; Sorm, Frantisek

CORPORATE SOURCE: Ceskoslov. Akad. Ved, Prague, Czech.

SOURCE: Collection of Czechoslovak Chemical Communications (1969), 34(3), 857-66

CODEN: CCCCAK; ISSN: 0010-0765

DOCUMENT TYPE: Journal

LANGUAGE: English

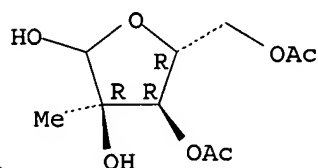
IT 23669-94-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 23669-94-5 CAPLUS

CN Ribofuranose, 2-C-methyl-, 3,5-diacetate, D- (8CI) (CA INDEX NAME)

Absolute stereochemistry.



AB A mixture of 5 ml. Ac<sub>2</sub>O and 15 ml. C<sub>5</sub>H<sub>5</sub>N treated with ice-cooling with 1.4 g. 2-C-methyl-D-ribonolactone (I) in 15 ml. C<sub>5</sub>H<sub>5</sub>N, the whole kept at room temperature overnight, poured onto ice, and extracted with CHCl<sub>3</sub> gave 1.75 g. I 2,3,5-triacetate, b<sub>0.01</sub> 120° (bath temperature), [α]<sub>20</sub> 146.5° (c 0.51, EtOH). A solution of 1.6 g. I in 5 ml. C<sub>5</sub>H<sub>5</sub>N added to a mixture prepared at 0° from 4.3 g. BzCl and 15 ml. C<sub>5</sub>H<sub>5</sub>N, the whole kept at room temperature overnight, heated to 80° 1 hr., diluted with 1 ml. MeOH, evaporated, and extracted with CHCl<sub>3</sub> gave 3.8 g. I 2,3,5-tribenzoate, m. 139-40° (MeOH) (sublimation), [α]<sub>20</sub> 122.5° (c 0.507, CHCl<sub>3</sub>). A suspension of 0.8 g. I, 10 ml. anhydrous Me<sub>2</sub>CO, 1 ml. HC(OEt)<sub>3</sub>,

and 0.05 ml. 20% ethanolic HCl shaken at room temperature 8 hrs. and neutralized

with Ag<sub>2</sub>CO<sub>3</sub> gave 0.86 g. I 2,3-O-isopropylidene derivative, b<sub>0.05</sub> 120° (bath temperature), m. 57-8° (sublimation), [α]<sub>2D0</sub> -44.0° (c 0.54, EtOH). A stirred mixture of 15 g. I, 500 ml. 0.001N H<sub>2</sub>SO<sub>4</sub>, and 1500 ml. Dowex 50 (H<sup>+</sup>) ion-exchange resin treated in one lot with 1000 g. 2.5% Na amalgam (the temperature rose spontaneously to 40°), the whole kept 1 hr., filtered, and the filtrate passed through a column of Dowex 1 (HCO<sub>3</sub><sup>-</sup>) ion-exchange resin gave 11 g. 2-C-methyl-D-ribose (II), m. 93-5° (iso-PrOH), [α]<sub>2D0</sub> -23.6° (after 15 min.) (c 0.622, H<sub>2</sub>O); II N-benzyl-N-phenylhydrazone m. 169-72° (MeOH), [α]<sub>2D0</sub> 6.3° (c 0.207, EtOH). II was prepared also by reduction of I with aqueous NaBH<sub>4</sub>. A mixture of 2 g. II, 100 ml. MeOH, and 5 ml. 20% methanolic HCl refluxed 5 hrs., and neutralized with Dowex 1 (OH<sup>-</sup>) ion-exchange resin gave 1.2 g. Me 2-C-methyl-β-D-ribofuranoside (III), m. 109° (MeOH), [α]<sub>2D0</sub> -82.1° (c 0.504, EtOH). Aqueous III refluxed with Dowex 50 (H<sup>+</sup>) ion-exchange resin gave II. A suspension of 0.9 g. III, 10 ml. Me<sub>2</sub>CO, 1 ml. HC(OEt)<sub>3</sub>, and 3 drops 20% methanolic HCl shaken at room temperature overnight and neutralized with Ag<sub>2</sub>CO<sub>3</sub> gave 0.9 g. III 2,3-O-iso-propylidene derivative, b<sub>0.05</sub> 60° (bath temperature), [α]<sub>2D0</sub> -84.0° (c 0.512, EtOH). A solution of 0.5 g. III in 5 ml. C<sub>5</sub>H<sub>5</sub>N added dropwise at 0° to a mixture of 10 ml. C<sub>5</sub>H<sub>5</sub>N and 3 ml. Ac<sub>2</sub>O, the whole poured onto ice, and extracted with CHCl<sub>3</sub> gave 0.2 g. III 3,5-diacetate, b<sub>0.01</sub> 120-5° (bath temperature), [α]<sub>2D0</sub> -43.6° (c 0.559, EtOH). The preceding reaction mixture refluxed 5 hrs. gave 0.7 g. III 2,3,5-triacetate (IV), m. 60° (sublimation), [α]<sub>2D0</sub> -9.8° (c 0.48, EtOH). A solution of III in C<sub>5</sub>H<sub>5</sub>N treated at 0° with BzCl and the whole refluxed 5 hrs. gave 65% III 3,5-dibenzoate, b<sub>0.01</sub> 180-5° (bath temperature), [α]<sub>2D0</sub> -19.9° (c 0.619, EtOH). The attempted preparation of III tribenzoate failed even under forced conditions. A solution of IV in MePh saturated at 0° with dry HBr, the mixture kept 8 hrs. at 0° and evaporated, the residue dissolved in dioxane, and the solution shaken with Ag<sub>2</sub>CO<sub>3</sub> gave syrupy 3,5-di-O-acetyl-2-C-methyl-D-ribose and a syrupy mixture of anomeric 2,3,5-tri-O-acetyl-2-C-methyl-D-ribofuranoses. A mixture of 14 ml. Ac<sub>2</sub>O and 1.6 g. 70% aqueous HClO<sub>4</sub> treated at 0° with 1.5 g. IV in 5 ml. AcOH, the whole heated at 60° 2 hrs., treated at 20° with 1 g. NaOAc in 15 ml. AcOH, poured onto ice, and extracted with CHCl<sub>3</sub> gave 0.4 g. 1,2,3,5-tetra-O-acetyl-2-C-methyl-β-D-ribofuranose (V), m. 156° (sublimation), [α]<sub>2D0</sub> -18.8° (c 0.499, EtOH). Similarly, 0.9 g. III gave 0.31 g. V. A suspension of 1.6 g. II in 5 ml. PhCH<sub>2</sub>OH saturated with dry HCl gave 0.4 g. benzyl 2-C-methyl-β-D-furanoside (VI), m. 99-100° (MeOH), [α]<sub>2D0</sub> -187° (c 0.454, EtOH), and 0.15 g. of the α-D anomer, m. 125° (C<sub>6</sub>H<sub>6</sub>), [α]<sub>2D0</sub> -108.2° (c 0.338, EtOH). A mixture of 0.5 g. VI, 5 ml. C<sub>5</sub>H<sub>5</sub>N, and 2 ml. Ac<sub>2</sub>O refluxed 6 hrs. gave 0.59 g. benzyl 2,3,5-tri-O-acetyl-2-C-methyl-β-D-ribofuranoside, m. 112° (cyclohexane), [α]<sub>2D0</sub> -75.3° (c 0.503, EtOH), the hydrogenolysis of which in EtOH over 10% Pd on C followed by acetylation with Ac<sub>2</sub>O in C<sub>5</sub>H<sub>5</sub>N yielded 70% V. Acetylation of 0.16 g. II in AcOH with Ac<sub>2</sub>O, and 70% aqueous HClO<sub>4</sub> gave 0.04 g. V. A mixture of II, Ac<sub>2</sub>O, and C<sub>5</sub>H<sub>5</sub>N refluxed 5 hrs. gave 0.1 g. V. Treatment of II with PhCH<sub>2</sub>OCOC<sub>2</sub>Cl gave 31% 2-C-methyl-D-ribofuranose 2,3-carbonate (VII) 1,5-di-O-benzoyloxycarbonyl derivative, m. 88° (Et<sub>2</sub>O), [α]<sub>2D0</sub> -50.3° (c 0.280, EtOH), the hydrogenolysis of which in MeOH over prereduced PdCl<sub>2</sub> yielded 87% VII, m. 113° (EtOAc).

=> log y  
COST IN U.S. DOLLARS

SINCE FILE      TOTAL  
ENTRY          SESSION